



GlycoMimetics, Inc.

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GlycoMimetics Announces Two Oral Presentations on Lead Drug Candidate GMI-1070 at American Society of Hematology Annual Meeting

Results of a Phase 1 Clinical Trial of GMI-1070 Also Accepted for Poster Presentation and Publication

GAITHERSBURG, Md. - December 7, 2009 -- GlycoMimetics, Inc., a clinical-stage biotechnology company developing a new class of glycobiology-based therapies for a broad range of indications, today announced that two abstracts describing preclinical studies with GMI-1070 have been selected for oral presentations at the 51st Annual American Society of Hematology (ASH) meeting being held December 5-8 in New Orleans. Results of a Phase 1 clinical trial of GMI-1070 were also accepted for poster presentation.

The two oral presentations describe the results of a series of experiments demonstrating the activity of GMI-1070 in cancer-related studies. GMI-1070 is a rationally-designed carbohydrate mimic (or "glycomimetic") that has been shown to inhibit inflammation and cell trafficking in several animal models of disease.

The first presentation describes the results of studies performed in collaboration with researchers at The Dana-Farber Cancer Institute in Boston, Massachusetts. In animal models, GMI-1070 was shown to inhibit the homing of multiple myeloma cells to the bone marrow, a key phase of the disease. These data will be presented on Tuesday, December 8, 2009 at 8:30 a.m. during the Myeloma - Pathophysiology and Preclinical Studies excluding Therapy: Targeting the Plasma Cell Microenvironment oral session in a presentation titled "The Role of Selectins in the Pathogenesis of Multiple Myeloma" (**Abstract #951**).

The second presentation describes the results of studies performed in collaboration with scientists at the Mater Medical Research Institute in Brisbane, Australia suggesting that GMI-1070 may protect bone marrow from certain toxic effects of chemotherapy. These data, "Absence or blockage of E-selectin-mediated cell adhesion delays hematopoietic stem cell (HSC) turn-over and enhances chemoresistance" (**Abstract #564**), will be presented on Monday, December 7, 2009 at 4:00 p.m. during the Hematopoiesis - Microenvironment, Cell Adhesion and Mesenchymal Stem Cells: Homing to the Niche oral session.

In addition, the results of a recently completed Phase 1 clinical study of GMI-1070 were presented in a poster presentation and have been accepted for publication in the 2009 volume of the meeting's Education Program. The poster, "Safety, Tolerability and Pharmacokinetics of GMI-1070, a Pan-Selectin Inhibitor for Treatment of Vaso-Occlusive Crisis: Single and Multiple Dose Studies in

Healthy Volunteers” (**Abstract 1526**), details results of Phase 1 safety studies of GMI-1070 in healthy volunteers in which GMI-1070 was shown to be safe and well tolerated in single doses ranging from 5 to 40 mg/kg and multiple doses given over several days. It concludes that the trial supports the further evaluation of GMI-1070 for the treatment of sickle cell patients in vaso-occlusive crisis. A pilot study of GMI-1070 is currently underway in patients with sickle cell disease. The poster was part of the Hemoglobinopathies, excluding Thalassemia Poster I session on Saturday, December 5, 2009, 5:30-7:30 p.m.

About GMI-1070

GlycoMimetics' lead compound, GMI-1070, is a rationally-designed glycomimetic inhibitor of E-, P- and L-selectins, that interferes in a key early step in the inflammatory process leading to leukocyte adhesion and recruitment to inflamed tissue. GMI-1070 has been shown to be active in several models of diseases in which leukocyte adhesion and activation play a key role, including vaso-occlusive crisis of sickle cell disease. By inhibiting selectin interactions, GMI-1070 may be able to decrease the enhanced cell adhesion that results in vaso-occlusive crisis. In preclinical studies GMI-1070 restored blood flow to affected vessels of sickle cell animals experiencing vaso-occlusive crisis. GMI-1070 is also being evaluated in preclinical studies for the treatment of certain hematologic cancers, where selectin-mediated cell adhesion and migration is known to play a key role in the disease process. Two Phase 1 trials of GMI-1070 were successfully completed in the first quarter of 2009, with no serious adverse events reported. In September, the company announced the initiation of a pilot study of GMI-1070 in sickle cell patients. Initiation of Phase 2 clinical trials in sickle cell disease is planned in early 2010.

About Multiple Myeloma

Multiple myeloma is a cancer of the type of white blood cell commonly referred to as plasma cells. The five-year survival rate for multiple myeloma has increased significantly over the last 50 years, but currently stands at only just over 37 percent for all races and ethnicities. Over 20,000 new cases of multiple myeloma are estimated to be diagnosed in the United States in 2009, with an estimated 60,000 people currently living with or in remission from the disease. There is no cure for multiple myeloma. Patients who require myeloma-specific therapies may receive combination drug therapy, high-dose chemotherapy with stem cell transplant or radiation therapy for local disease.

About Sickle Cell Disease and Vaso-Occlusive Crisis

Vaso-occlusive crisis is the main clinical feature of sickle cell disease, often resulting in significant patient complications, and sometimes death. Currently, there are no mechanism-based therapies for treatment of vaso-occlusive crisis. Treatment consists primarily of supportive therapy in the form of hydration and pain control, typically requiring hospitalization for five to six days. There are more than 75,000 hospitalizations per year associated with vaso-occlusive crisis in the U.S.

About GlycoMimetics, Inc.

GlycoMimetics is a privately held biotechnology company that capitalizes on advances in the field of glycobiology. The company uses rational design of small molecule drugs that mimic the functions of bioactive carbohydrates to develop new drug candidates. The company's initial focus is on therapeutics to treat inflammation, cancer, and infectious diseases. For additional information, please visit the company's website: <http://www.glycomimetics.com>.